

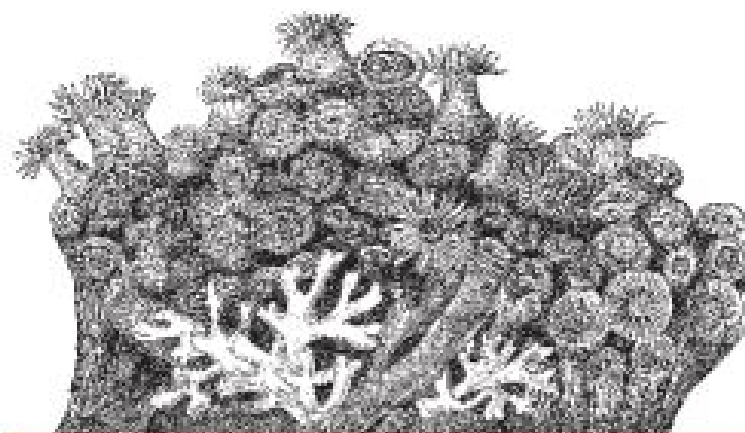
# Write and Submit your first Linux Kernel Patch

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[git://github.com/gregkh/kernel-tutorial.git](https://github.com/gregkh/kernel-tutorial.git)

Documentation/HowTo

**What are we not going to cover?**



# LINUX KERNEL

## IN A NUTSHELL

*A Desktop Quick Reference*

O'REILLY®

*Greg Kroah-Hartman*

SECOND EDITION

Based on  
Draft-Proposed  
ANSI C

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THE

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C

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PROGRAMMING  
LANGUAGE

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BRIAN W. KERNIGHAN  
DENNIS M. RITCHIE

PRENTICE HALL SOFTWARE SERIES

# What we are going to cover

- git basics
- Linux kernel coding style
- Fixing a file
- Generating a patch
- Emailing the patch

+++ git

# git

the fast version control system



# git clone

```
git clone git://git.kernel.org/pub/scm/linux/kernel/git/torvalds/linux-2.6.git
```



# git branch

`git branch tutorial`

`git checkout tutorial`

# Linux Kernel Coding Style

Why Care?

**“It is not merely a matter of aesthetics that programs should be written in a particular style. Rather there is a psychological basis for writing programs in a conventional manner: programmers have strong expectations that other programmers will follow these discourse rules. If the rules are violated, then the utility afforded by the expectations that programmers have built up over time is effectively nullified.”**

**– Soloway & Ehrlich**

# Documentation/CodingStyle

**Use tabs**

**All tabs are 8 characters**

**80 character line limit**

```
if (error != -ENODEV) {  
    foo();  
    bar();  
}
```

```
if (error != -ENODEV) {  
    foo();  
    bar();  
} else {  
    report_error();  
    goto exit;  
}
```

```
if (error != -ENODEV)  
    foo();  
else  
    goto exit;
```



```
int function(int *baz)  
{  
    do_something(baz);  
    return 0;  
}
```

**scripts/checkpatch.pl**

USB: otg: Fix bug on remove path without transceiver

In the case where a gadget driver is removed while no transceiver was found at probe time, a bug in otg\_put\_transceiver() will trigger.

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Signed-off-by: Greg Kroah-Hartman <gregkh@suse.de>

--- a/drivers/usb/otg/otg.c

+++ b/drivers/usb/otg/otg.c

@@ -43,7 +43,8 @@ EXPORT\_SYMBOL(otg\_get\_transceiver);

void otg\_put\_transceiver(struct otg\_transceiver \*x)

{  
-       put\_device(x->dev);

+       if (x)

+             put\_device(x->dev);

}

# Developer's Certificate of Origin

- (a) I created this change; or
- (b) Based this on a previous work with a compatible license; or
- (c) Provided to me by (a), (b), or (c) and not modified
- (d) This contribution is public.

**git diff**

**git commit**

**git show**

**git format-patch**

**git send-email**

**scripts/get\_maintainer.pl**

# Checklist

- Kernel builds with patch applied
- Correct “From:” address
- Concise “Subject:”
- Explain the patch
- Signed-off-by

# kernelnewbies.org





